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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,071	11/20/2003	James Chien-Chiung Chen	TUC920030132US1	2276

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EXAMINER
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LIN, KENNY S

ART UNIT	PAPER NUMBER
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2452

NOTIFICATION DATE	DELIVERY MODE
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03/11/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

krvuspto@ipmatters.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/719,071	<b>Applicant(s)</b> CHEN ET AL.	
	<b>Examiner</b> Kenny S. Lin	<b>Art Unit</b> 2452	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 31-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 31-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1-8, 31-46 are presented for examination. Claims 9-30 are canceled.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/5/2009 has been entered.

#### ***Response to Arguments***

3. Applicant's arguments filed 1/5/2009 have been fully considered but they are not persuasive.
4. In the remark, applicant argued (1) West and Brown in combination or alone do not teach the claimed limitation.
5. Examiner traverse the argument:  
  
As to point (1), in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). West reference specifically

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taught to communicate commands produced by the primary storage controller to the secondary controller. Brown taught to assign priority to types of commands for handling (col.9, lines 19-33: each of general priority, subject priority, user priority, time priority... may be further specified according to the type of message request being received). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of West and Brown because Brown's teaching and suggestion of assigning priority according to various attribute of the request enables West's method to manage the order of processing for incoming requests.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 7, 37 and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The following terms lack proper antecedence basis:

i. Claim 7, 37 and 45 – the host priority (host priority is not introduced in claims 1, 31 and 39. It is uncertain what "the host priority" is referring to).

***Claim Rejections - 35 USC § 101***

8. 35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 31-38 are rejected under 35 U.S.C. 101 because the invention is not limited to statutory embodiments. "An article of manufacture" defined in the specification paragraph 0050 includes code implemented in transmission media such as wave or signal. Hence, the article of manufacture is not tangible since such code implemented in transmission media does not fall into the categories of "process", "machine", "manufacture" and "composition of matter". As such, the claim is not limited to statutory subject matter and is therefore non-statutory. See MPEP § 2106.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-5, 31-35 and 39-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over West et al (West), US6,912,629, in view of Brown et al (Brown), US 7,107,316.

12. West and Brown were cited in the previous office action.

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13. As per claims 1, 31 and 39, West taught the claimed invention including a method for assigning priorities, comprising:

- a. Under control of a primary control unit,
  - i. Receiving a request to manipulate data (col.4, lines 40-43, col.6, lines 50-55);
  - ii. Determining a type of the request, wherein the type of the request includes a synchronous copy command, an asynchronous copy command, and an establish with copy command (col.1, lines 54-67, col.2, lines 1-34); and
  - iii. Sending a command to a secondary control unit, wherein the command includes the request, wherein the primary control unit and the secondary control unit allocate resources to handle the request (col.4, lines 40-43, col.5, lines 25-30, 36-39,).

14. West did not specifically teach to assign a priority to the request based on the type of the request and to handle the request based on the assigned priority. Brown taught to assign priorities to the messages based on the type of request message and to handle the request based on the assigned priority (abstract, col.2, lines 43-58, col.9, lines 19-33). Brown further taught that under control of the secondary control unit, using the priority assigned to the request by the primary control unit to process the request (col.2, lines 43-58, col.9, lines 19-33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of West and Brown because Brown's teaching and suggestion of assigning priority

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according to various attribute of the request enables West's method to manage the order of processing for incoming requests.

15. As per claims 2-5, 32-35 and 40-43, West and Brown taught the invention substantially as claimed in claims 1, 31 and 39. West further taught that the request is issued with synchronous PPRC command, asynchronous PPRC command, Extended Distance PPRC command (col.1, lines 54-67, col.2, lines 1-34). Brown taught to assign the requests different priorities (col.2, lines 43-58, col.9, lines 19-33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of West and Brown and assign priorities over different types of commands including PPRC commands for processing.

16. Claims 6-8, 36-38 and 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over West and Brown as applied to claims 1, 31 and 39 above, and further in view of Meaney et al (Meaney), US 5,564,062.

17. Meaney was cited in the previous office action.

18. As per claims 6-8, 36-38 and 44-46, West and Brown taught the invention substantially as claimed in claims 1, 31 and 39. West further taught that the request is issued with a synchronous Peer-to-Peer Remote Copy command (col.1, lines 54-67). Brown further disclosed to receive a host priority with the request; and mapping the host priority to a priority in high

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priority range having multiple priority values based on the host priority (col.9, lines 24-67, col.10, lines 1-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of West and Brown and assign priorities over different types of commands including PPRC commands for processing. West and Brown did not specifically teach to map the host priority based on one of pending I/O requests and available resources. Meaney taught to assign and update priority based on pending I/O request and resource availability (abstract, col.2, lines 5-29). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of West, Brown and Meaney because Meaney's teaching of checking the availability of resource enables West and Brown's method to avoid resource conflict and assign priority to requests accordingly.

### ***Conclusion***

19. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenny Lin whose telephone number is (571) 272-3968. The examiner can normally be reached on 8 AM to 5 PM Tue.-Fri. and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kenny S Lin/  
Primary Examiner, Art Unit 2452  
March 9, 2009